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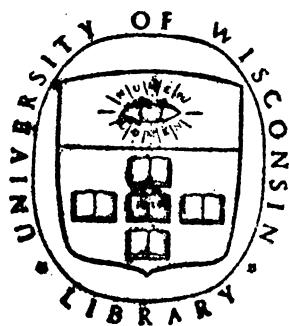
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ART EDUCATION

THE

TRUE INDUSTRIAL EDUCATION

BY

WM. T. HARRIS, LL. D.

COMMISSIONER OF EDUCATION

Second Edition, from New Plates



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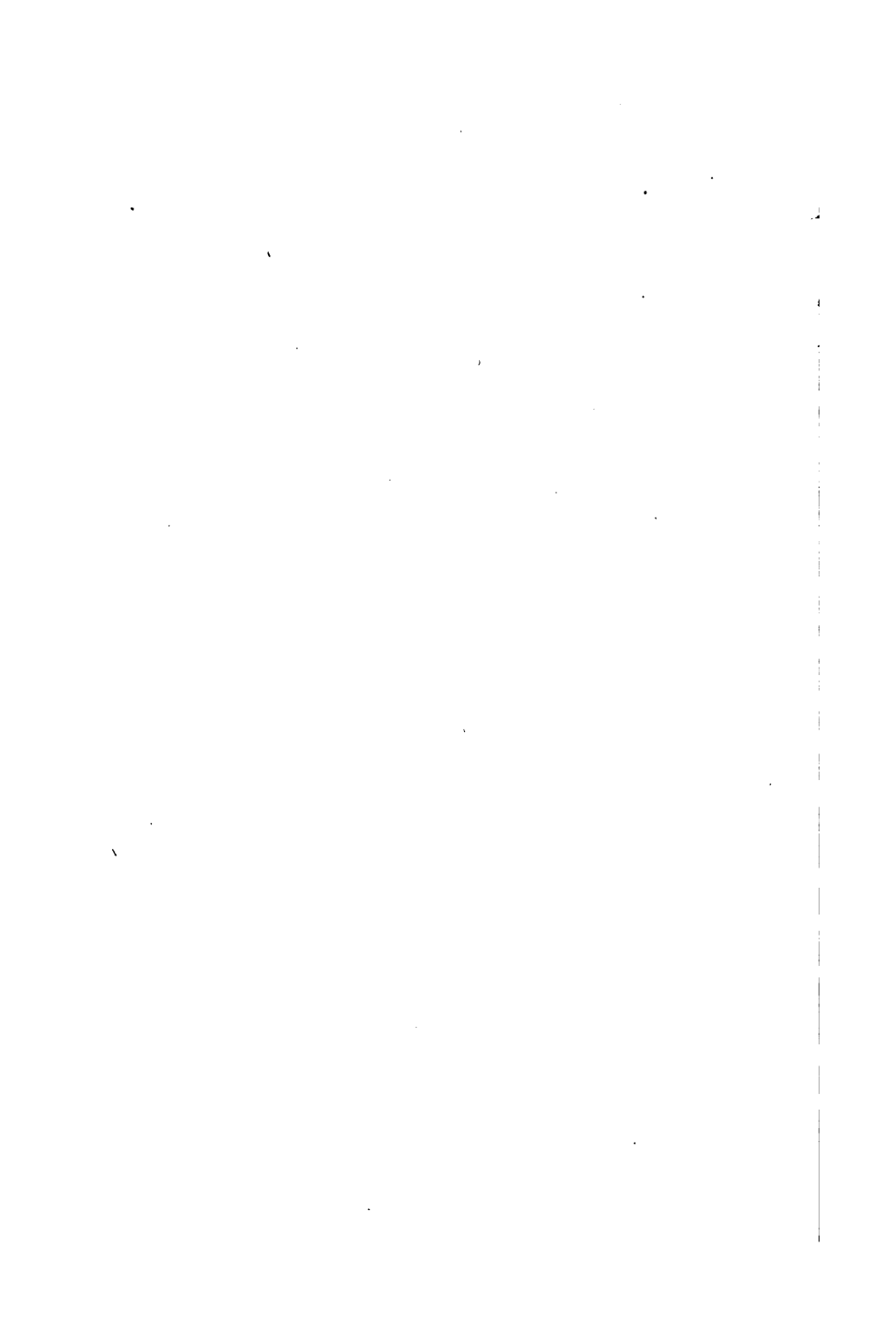
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NOTE BY THE PUBLISHER

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ART EDUCATION

The True Industrial Education

Art Education the True Industrial Education

We have heard much said on the subject of industrial training in recent years. It would seem that there is no educational subject that occupies the mind of the public more extensively at the present time. There is, however, not an entire agreement among its agitators as to the exact nature of the education demanded for industry. It is the object of my paper to assist in clearing up this question of the best form of training for profitable work in the industries.

One will concede at the start, that tool-work is valuable as industrial training ; and that especially the course of study and work in the manual-training school is valuable because it teaches how to manufacture tools and machines of all kinds, and thereby gives the laborer a sort of command over the instruments of industry that assists him very much in his struggle for excellence in the fields of labor.

Still more valuable must we regard the study of natural science, and especially of applied mathematics, in the laws of matter and motion. It furnishes the theory of all machinery and of all production of supplies from nature.

Besides this, we may claim that general education is of the utmost importance, opening as it does the powers of thought and observation, giving each laborer an insight into human nature, and fitting him for logical thinking on all subjects; fitting him alike to lead others and combine them in extensive undertakings, and likewise to serve faithfully and intelligently other leaders, when the case requires. This general education is indeed indispensable to the citizen and to the best quality of industrial people.

[But æsthetic education—the cultivation of taste, the acquirement of knowledge on the subject of the origin of the idea of beauty (both its historic origin and the philosophical account of its source in human nature), the practice of producing the outlines of the beautiful by the arts of drawing, painting, and modelling, the criticism of works of art, with a view to discover readily the causes of failure or of success in æsthetic effects—all these things we must claim

form the true foundation of the highest success in the industries of any modern nation.]

The dynamic side is needed ; but invention of the useful does not succeed in controlling the markets of the world. [A nation with its laborers all educated in their taste for beautiful forms will give graceful shapes to their productions, and command higher prices for them. The graceful shape and the proper ornamentation charm the purchaser, and he willingly pays a higher price for the beautiful article of usefulness if it is made by an artist than if it is made by a mere artisan.

On another occasion I have called attention to the backward state of Swedish education in æsthetic art. Sweden is the leader in the manual-training movement, but her educators have not yet seen the importance of developing [correct taste among the laborers as a condition of industrial success.] Accordingly we find that ingenuity is increasing to some extent in that country, but that there is no improvement in the artistic finish and ornamentation of their goods. Clumsy shapes and incongruous ornament are the characteristics of Swedish goods. Other nations do not want such ugly shapes in sight, and do not buy them. To have ugly

utensils perpetually in view gradually works degeneration in one's taste.

The figures of our commercial reports show that we import raw materials from Sweden, but do not buy their manufactures. In the official report of commerce and navigation of the United States for 1881, the imports from Sweden and Norway are reported as, pig iron, \$111,176 ; bar iron, \$517,959 ; old and scrap-iron. \$114,883 ; total, \$744,018. But of manufactures of iron and steel, only \$111,749 are reported.

It is surprising to note that we imported wood manufactures from them only to the small amount of \$137, while we imported rags for paper manufacture to the amount of \$39,090—but no manufactured clothing to speak of ! The same year Belgium sent us wood manufactures to the value of \$118,146, or nearly one thousand times the value of the same item from Sweden and Norway !

In 1851, at the World's Exposition in London, it became evident that English industries were not of such a character as to compete with those of France and Belgium. Prince Albert, wise and thoughtful as he was, set about a deep-reaching system of education that should correct the national defect,

and recover the prestige of British arts and manufactures.] The South Kensington Museum was established, and day and evening art schools set up in all manufacturing centres. The museum placed at its foundation a collection of works of art showing the history of art, its beginnings, its high-water marks, and its fluctuations. On this basis instruction was given in those forms of ornamentation that the world has pronounced beautiful. There began from this time a gradual rise in the taste of the English workman; from being an artisan pure and simple he began to be an artist. England has gone forward rapidly in the direction of producing works of taste, and her useful manufactures, heretofore made without reference to beauty, have improved in tastefulness of design and execution.

The establishment of a great national art gallery, the Louvre, and the study of French savants in the canons of good taste, had long before revolutionized French manufactures, and given France the supremacy in the world market for goods that command high prices and ready sale.

Taking hint from England, we have had in this country something of the fever for education in art, especially in the lines of industrial drawing. Re-

markable as has been our progress in the matter, yet there is a prevalent lack of insight into the true direction and significance of this branch of industrial drawing. We have had much stress laid on geometric drawing and the construction of working-drawings, as well as the old-fashioned system of drawing pictures of objects, and we have had much invention of original designs, founded on the basis of regularity and symmetry, but we have had very little of a really high order of æsthetic.

In order to explain this statement, I ask your attention to a discussion of some general ideas on the theory of art with a view to show the object of art and its historical realization. This will help to explain to us why art exercises and has exercised so much influence in the world, and why it dominates still in the market of industrial productions. Wealth demands the æsthetic. The days of poverty may be satisfied with the useful.

Let us inquire into the scope of art and see its function, whether serious or trivial, whether elevating or degrading to the soul. Let us study it, in short, in its relations to religion as well as in its relations to industry, because only in this serious

aspect can it justify for itself its high place in the esteem of mankind.

There is the theory that the primary function of art is amusement. What makes this degrading theory plausible is the fact that there is sensuous enjoyment in the contemplation of works of art. But if we analyze this effect we shall trace even it to something higher than sensuous sources.

The sensuous elements in art are REGULARITY, SYMMETRY, and HARMONY.

1. *Regularity* is recurrence of the same—mere repetition. A rude people scarcely reaches a higher stage of art. The desire for amusement is gratified by a string of beads or a fringe of some sort. It is a love of rhythm. The human form divine does not seem beautiful to the savage. It is not regular enough to suit his taste. He must accordingly make it beautiful by regular ornaments, or by deforming it in some way ; by tattooing it, for example.

Why does regularity please? Why does recurrence or repetition gratify the taste of the child or savage?^A [The answer to this question is to be found in the generalization that the soul delights to behold itself, and that human nature is “mimetic”, as

Aristotle called it, signifying symbol-making. [Man desires to know himself and to reveal himself, in order that he may comprehend himself; hence he is an art-producing animal. Whatever suggests to him his deep, underlying spiritual nature gives him a strange pleasure.]

The nature of consciousness is partly revealed in types and symbols of the rudest art. Chinese music, like the music of very young children, delights in monotonous repetitions that almost drive frantic anyone with a cultivated ear. But all rhythm is a symbol of the first and most obvious fact of conscious intelligence or reason. Consciousness is the knowing of the self by the self. There is subject and object, and the activity of recognition. From subject to object there is distinction and difference, but with recognition sameness or identity is perceived, and the distinction or difference is retracted.

What is the simple rhythm from difference to identity but regularity? It is, we answer, regularity, but it is much more than this. But the child or savage delights in monotonous repetition alone, not possessing the slightest insight into the cause of his delight. His delight is, however, explicable through this fact of the identity in form between

the rhythm of his soul-activity and the sense-perception by which he perceives regularity.

The sun-myth arises through the same feeling. Wherever there is repetition, especially in the form of return-to-itself, there comes this conscious or unconscious satisfaction at beholding it. Hence circular movement, or movement in cycles, is the most wonderful of all the phenomena beheld by primitive man. Nature presents to his observation infinite differences. Out of the confused mass he traces some forms of recurrence : day and night, the phases of the moon, the seasons of the year, genus and species in animals and plants, the apparent revolutions of the fixed stars, and the orbits of planets.

These phenomena furnish him symbols or types in which to express his ideas concerning the divine principle that he feels to be First Cause. To the materialistic student of sociology all religions are merely transfigured sun-myths. But to the deeper student of psychology it becomes clear that the sun-myth itself rests on the perception of identity between regular cycles and the rhythm which characterizes the activity of self-consciousness. And self-consciousness is felt and seen to be a form of being

that is not on a par with mere transient, individual existence, but rather the essential attribute of the divine being, Author of all.)

Here we see how deep-seated and significant is this blind instinct or feeling which is gratified by the seeing and hearing of mere regularity. The words which express the divine in all languages root in this sense-perception and æsthetic pleasure attendant on it. Philology, discovering the sun-myth origin of religious expression, places the expression before the thing expressed, the symbol before the thing signified. It tells us that religions arise from a sort of disease in language which turns poetry into prose. But underneath the æsthetic feeling lies the perception of identity which makes possible the trope or metaphor.

2. *Symmetry.* Regularity expresses only the empirical perception of the nature of self-consciousness and reason. There is, as we have seen, a subject opposed to itself as object. Opposition or antithesis is, however, not simple repetition, but opposition. The identity is therefore one of symmetry instead of regularity. Symmetry contains and expresses identity under difference. We cannot put the left-hand glove on our right hand. The two

hands correspond, but are not repetitions of the same. (It is a mark of higher æsthetic culture to prefer symmetry to regularity. It indicates a deeper feeling of the nature of the divine)

Nations that have reached this stage show their taste by emphasizing the symmetry in the human form by ornaments and symmetrical arrangement of clothing. They correct the lack of symmetry in the human form in the images of their gods. The face is on the front side of the head, but the god shall have a face on the back of his head too, to complete the symmetry. The arms directed to the front of the body must also correspond to another pair of arms directed in the opposite direction. Perhaps perfect symmetry is still more exacting in its requirements, and demands faces with arms to match on the right and left sides of the body. To us the idols of the ancient Mexicans and Central Americans seem hideous. But it was the taste for symmetry that produced them.

3. *Harmony* is the object of the highest culture of taste. Regularity and symmetry are so mechanical in their nature that they afford only remote symbols of reason in its concreteness. They furnish only the elements of art, and must be subordinated

to a higher principle. Harmony is free from the mechanical suggestions of the lower principles, but it possesses in a greater degree the qualities which gave them their charm. Just as symmetry exhibits identity under a deeper difference than regularity, so harmony, again, presents us a still deeper unity underlying wider difference.

The unity of harmony is not a unity of sameness, nor of correspondence merely, but a unity of adaptation to end or purpose. Mere symmetry suggests external constraint; but in art there must be freedom expressed. Regularity is still more suggestive of mechanical necessity. Harmony boldly discards regularity and symmetry, retaining them only in subordinate details, and makes all subservient to the expression of a conscious purpose.

The divine is conceived as spiritual intelligence elevated above its material expression so far that the latter is only a means to an end. The Apollo Belvedere has no symmetry of arrangement in its limbs, and yet the disposition of each limb suggests a different disposition of another, in order to accomplish some conscious act upon which the mind of the god is bent. All is different, and yet all

is united in harmony for the realization of one purpose.

Here the human form, with its lack of regularity and symmetry, becomes beautiful. The nation has arrived at the perception of harmony, which is a higher symbolic expression of the divine than were the previous elements. The human body is adapted to the expression of conscious will, and this is freedom. The perfect subordination of the body to the will is gracefulness. It is this which constitutes the beauty of classic art : to have every muscle under perfect obedience to the will—unconscious obedience—so that the slightest inclination or desire of the soul, if made an act of the will, found expression in the body.

When the soul is not at ease in the body, but is conscious of it as something separate, gracefulness departs, and awkwardness takes its place. The awkward person does not know what to do with his hands and arms ; he cannot think just how he would carry his body or fix the muscles of his face. He chews a stick or bites a cigar in order to have something to do with the facial muscles, or twirls a cane or twists his watch-chain, folds his arms before or behind, or even thrusts his hands into his pock-

ets, in order to have some use for them which will restore his feeling of ease in his body. The soul is at ease in the body only when it is using it as a means of expression or action.

Harmony is this agreement of the inner and outer, of the will and the body, of the idea and its expression, so that the external leads us directly to the internal of which it is the expression. Gracefulness then results, and gracefulness is the characteristic of classic or Greek art. Not only its statues, but its architecture and architectural ornament exhibit gracefulness or freedom.

The Greek religion made beauty the essential feature of the idea of the divine, and hence his art is created as an act of worship of the beautiful. It represents the supreme attainment of the world in pure beauty, because it is pure beauty and nothing beyond. Christianity reaches beyond beauty to holiness.

Other heathen religions fall short of the Greek ideal, and lack an essential element which the Greek religion possessed. The Greeks believed that the divine is at the same time human ; and human not in the sense that the essence of man, his purified intellect and will, is divine, but human in the cor-

poreal sense as well. The gods of Olympus possess appetites and passions like men ; they have bodies, and live in a special place. They form a society, or large patriarchal family. The manifestation of the divine is celestial beauty.

Moreover, the human being may by becoming beautiful become divine. Hence the Greek religion centers about gymnastic games. These are the Olympian, the Isthmean, the Nemean, and the Pythian games. Exercises that shall give the soul sovereignty over the body and develop it into beauty, are religious in this sense. Every village has its games for physical development ; these are attended by the people, who become in time judges of perfection in human form, just as a community that attends frequent horse-races produces men that know critically the good points of a horse. It is known who is the best man at wrestling, boxing, throwing the discus, the spear, or javelin ; at running, at leaping, or at the chariot or horseback races.

Then at less frequent intervals there is the contest at games between neighboring villages. The successful hero carries off the crown of wild olive branches.

Nearly every year there is a great national assembly of Greeks, and a contest open to all. The Olympian festival at Olympia and the Isthmean festival near Corinth, are held the same summer; then at Argolis, in the winter of the second year afterwards, is the Nemean festival; then the Pythian festival near Delphi, and a second Isthmean festival, occur in the spring of the third year; and again there is a second Nemean festival in the summer of the fourth year of the Olympiad. The entire people, composed of independent states, united by ties of religion, assemble to celebrate this faith in the beautiful, and honor their successful youth. The results carried the national taste for the beautiful as seen in the human body to the highest degree.

The next step after the development of the personal work of art in the shape of beautiful youth, by means of the national games and the cultivation of the taste of the entire people through the spectacle of these games, is the art of sculpture, by which these forms of beauty, realized in the athletes and existing in the minds of the people as ideals of correct taste, shall be fixed in stone and set up in the temples for worship. Thus Greek art was born.

The statues at first were of gods and demigods exclusively. Those which have come down to us cause our unbounded astonishment at this perfection of form. It is not their resemblance to living bodies, not their anatomical exactness that interests us, not their so-called "truth to nature", but their gracefulness and serenity—their "classic repose".

Whether the statues represent gods and heroes in action or in sitting and reclining postures, there is this "repose", which means indwelling vital activity and not mere rest as opposed to movement. In the greatest activity there is considerate purpose and perfect self-control manifested. The repose is of the soul, and not a physical repose. Even sitting and reclining figures—for example, the Theseus from the Parthenon, the torso of the Belvedere—are filled with activity, so that the repose is one of voluntary self-restraint and not the repose of the absence of vital energy. They are gracefulness itself.

What a surprising thought is this, of a religion founded on beauty! How could it have arisen in the history of the world, and what became of it? Let us consider a few of the elements wherein the Greek religion was superior to other heathen religions.

The Hindoo worshipped an abstract unity devoid of all form, which he called Brahma. His idea of the divine is defined as the negation not only of everything in nature, but also of everything human. Nothing that has form, or shape, or properties, or qualities—nothing, in short, that can be distinguished from anything else, can be divine according to the thought of the Hindoo.

This is pantheism. It worships a negative might which destroys everything. If it admits that the world of finite things arises from Brahma as creator, it hastens to tell us that the creation is only a dream, and that all creatures will vanish when the dream fades. There can be no hope for any individuality, according to this belief. Any art that grows up under such a religion will manifest only the nothingness of individuality, and the impossibility of its salvation.

Instead of beauty as the attribute of divinity, the Hindoo studied to mortify the flesh ; to shrivel up the body ; to paralyze rather than develop his muscles. Instead of gymnastic festivals he resorted to the severest penances, such as holding his arm over his head until it wasted away. If he could produce numbness in his body so that all feeling

disappeared, he attained holiness. His divine was not divine-human, but inhuman, rather.

The Egyptian laid all stress on death. In his art he celebrated death as the vestibule to the next world and the life with Osiris. Art does not get beyond the symbolic phase with him. As in the hieroglyphic the picture of a thing is employed at first to represent the thing, and by-and-by it becomes a conventional sign for a word, so the works of art at first represent men and gods, and afterwards become conventional symbols to signify the ideas of the Egyptian religion.

The great question to be determined is this: What destiny does it promise the individual, and what kind of life does it command him to lead?

The Egyptian symbolizes his divine by the processes of nature that represent birth, growth and death, and resurrection, and hence conceive life as belonging to it. The course of the sun—its rising and setting, its noonday splendor, and its nightly eclipse; the successions of the seasons—the germination, growth and death of plants; the flooding and subsidence of the Nile—these and other phenomena are taken as symbols expressing the Egyptian conception of the divine living being.

Finally it rises out of the immediate artistic description by symbols, and tells the myth of Osiris killed by his brother Typhon, and of his descent to the silent realm of the under-world, and of his there reigning king, and of his resurrection.

The Indian art, on the contrary, dealt with symbols that were not analogous to human life. They revered mountains and rivers, and the storm-winds and great natural forces that were destructive to the individuality of man, but also revered life in animals. They founded asylums for aged cows, but not for decrepit humanity.

Persian art adored light as the divine; it also adored the bodies that give light—the sun, moon, and stars; also fire; also whatever is purifying, especially water. The Persian religion conceives two deities—a god of light and goodness, and a god of darkness and evil. The struggle between these two gods fills the universe, and makes all existence a contest. The art of the Persian portrays this struggle, and does not let pure human individuality step forth for itself.

In Assyria and Chaldea we have the worship of the sun rather than of pure light. Hence there were artificial hills or towers constructed, with as-

ascending inclined planes on the outside rising to the flat top, crowned with a temple dedicated to Belus, or the Sun-god. Images partly human, partly animal, represented the divine. The lion, the eagle, the quadruped and bird, the human face, these were united to make the symbol of a divine being who could not be manifested in a purely human form.

The Egyptian religion, though it surpassed the Persian in that it conceived the divine as much more near human life, still resorted to animal forms to obtain the peculiarly divine attributes. There were the sacred bulls Apis and Mnevis, the goat of Mendes, sacred hawks and ibis, and such divinities as Isis-Hathor, with a cow's head ; Touaris, with a crocodile's head ; Thoth, with the head of an ibis ; Horus, with the head of a hawk ; but Ammon, and Pthah, and Osiris, with human heads and bodies.

Thus we see that the Egyptian wavered between the purely human and the animal form as the image of the divine. So long as it is possible for a religion to permit the representation of the divine by an animal form, that religion has not yet conceived God as pure self-consciousness or reason. Its art cannot arrive at gracefulness.

As a consequence of this defect, however, it can-

not account for the origin and destiny of the world in such a way as to explain the problem of the human soul. It is an insoluble enigma whose type is a sphinx. The Sphinx is the rude rock out of which it rises, symbolizing inorganic nature; then the lion's body, typifying by the king of beasts the highest of organic beings below man; then the human face, looking up inquiringly to the heavens. Its question seems to be: "Thus far: what next?"

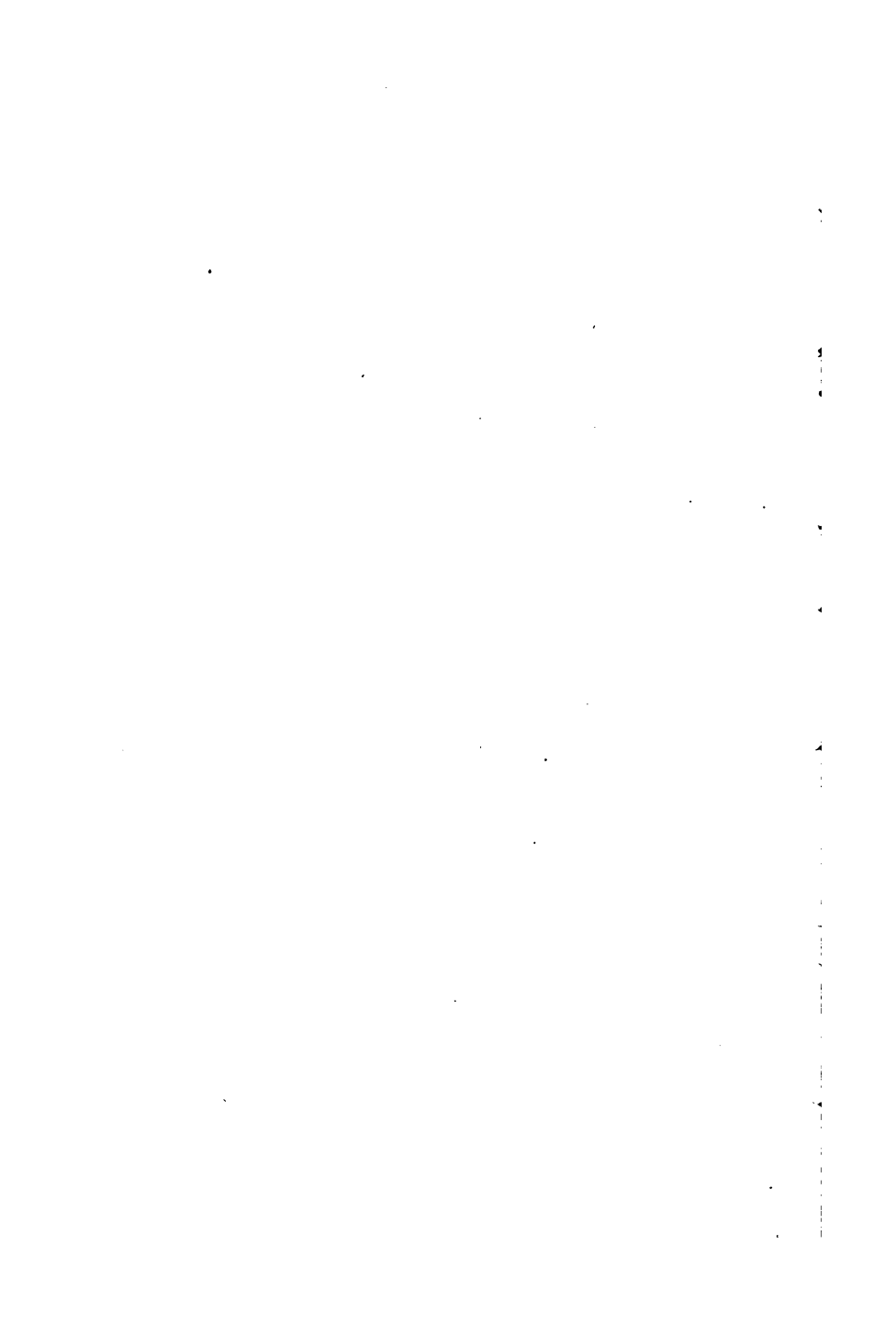
Does the human break the continuity of the circle of nature within which there goes on a perpetual revolution of birth, growth, and decay, or does the human perish with the animal and plant, and lose his individuality? How can his individuality be preserved without the body?

The Egyptian's highest thought was his enigma. He combined the affirmative and negative elements of this problem, conceiving that man survives death but will have a resurrection and need his particular body again, which, therefore, must be preserved by embalming it. The body of Osiris had to be embalmed by Isis. The sacred animals, bulls, and others, were embalmed upon death.

They had not learned that the image of God is man, and, more definitely, man's reason or self-

consciousness. It was a great step beyond the heathen religion of Asia and Africa, therefore, for the Greek religion to conceive the divine as dwelling in human form, however defective it was in respect to its doctrine of the particular attributes of man that are the true image of God.

Hence we have the explanation why it is that Greek art has become the conventional expression of the beautiful for all the civilized world. It alone aims at the expression of personal freedom in the body, and therefore, always achieves gracefulness. Christian art as such strives to show the soul as struggling to free itself from the body. All cultivated peoples will prefer ornament and works of art that show the triumph of the soul over matter to the manifestation of the predominance of matter or the struggle of the soul to free itself. Art studies should therefore find their centre in the history of Greek art.



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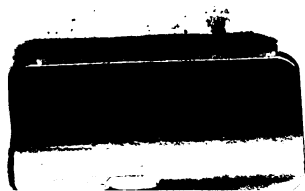
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